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EXAMINER

B2M1/1204

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NGUYEN, V
ART UNIT PAPER NUMBER

2213

7

DATE MAILED: 12/04/97

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 09/15/97

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire _____ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- ☒ Claim(s) 2-23 and 36-49 is/are pending in the application.
Of the above, claim(s) _____ is/are withdrawn from consideration.
☐ Claim(s) _____ is/are allowed.
☐ Claim(s) _____ is/are rejected.
☐ Claim(s) _____ is/are objected to.
☒ Claim(s) 2-23 and 36-49 are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
☐ The specification is objected to by the Examiner.
☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.
☐ received in Application No. (Series Code/Serial Number) _____
☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- ☐ Notice of Reference Cited, PTO-892
☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
☐ Interview Summary, PTO-413
☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
☐ Notice of Informal Patent Application, PTO-152

--SEE OFFICE ACTION ON THE FOLLOWING PAGES--

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1. Restriction to one of the following inventions is required under 35 U.S.C. § 121:

I. Claims 1-23 and 36-43, drawn to an apparatus for electrically testing a work piece, classified in Class 324, subclass 754.

II. Claims 24-35, drawn to a making method, classified in Class 29, subclass 840.

2. The inventions are distinct, each from the other because of the following reasons:

3. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (M.P.E.P. § 806.05(f)).

In the instant case, the bump in the apparatus of group I can be bonded to the surface by adhesive material other than forming a ball bond.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, have acquired a separate status in the art because of their recognized divergent subject matter and

the search for Group I is not required for group II restriction for examination purposes as indicated is proper.

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VV 5. During a telephone conversation with Mr. Morris on March 7, 1997 a provisional election was made without traverse to prosecute the invention of group I, claims 1-23 and 36-43 . Affirmation of this election must be made by applicant in responding to this Office action. Claims 24-35 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Claims 1,5-9,16, 23,36-37 and 40-42 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1,5-9 and 19-24 of copending application Serial No. 08/756831. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations of claims 1,5-9 and 19-23 of SN # 08/756831 encompass the limitations of the instant claims.

This is a *provisional* obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. The obviousness-type double patenting rejection is a judicially established doctrine based upon public policy and is primarily intended to prevent prolongation of the patent term by prohibiting claims in a second patent not patentably distinct from claims in a first patent. *In re Vogel*, 164 USPQ 619 (CCPA 1970). A timely filed terminal disclaimer in compliance with 37

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C.F.R. § 1.321(b) would overcome an actual or provisional rejection on this ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 C.F.R. § 1.78(d).

8. Claims 1-3 and 23 are rejected under 35 U.S.C. § 103 as being unpatentable over Huff et al (Pat # 4,918,383).

As to claims 1-3 and 23, Huff et al disclose a membrane probe (shown in figure # 3) having a substrate (22) with first surface and a plurality of bumps "60" (read as ball bonds). It appears that the locations in which the bumps "60" in contact with the membrane would be equivalent to the contact locations of the instant claims. It would have been obvious for one of ordinary skill in the art to provide means for moving the membrane probe structure toward the device under test so that it can perform the test. Furthermore, the type of substrate as well as the material type of the conductive members would have been obvious design choices based upon the availability of the materials.

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9. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

10. Claims 1,10,16-18,22-23 and 36-38 are rejected under 35 U.S.C. § 103 as being unpatentable over Tuckerman et al (Pat # 5,397,997).

As to claims 1,10,16-18,22-23 and 36-38,Tuckerman et al disclose a test substrate (as shown in figure 2) having a substrate with first and second surface,a plurality of first electrical contact locations (177),a plurality of conductive members (192) and a sheet of material(86) with a plurality of openings disposed for alignment with the conductive members (192) . It would have been obvious for one of ordinary skill in the art to provide means for moving the substrate toward the device under test (190) so that the test substrate can perform the test. Furthermore,the type of substrate would have been an obvious design choice based upon the availability of the materials.

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11. Claim 1 is rejected under 35 U.S.C. § 103 as being unpatentable over Gross et al (Pat # 4,922,192).

As to claim 1, Gross et al disclose elastic membrane probe having a substrate (12), a plurality of conductive members (13) and a plurality of contact locations (14). It would have been obvious for one of ordinary skill in the art to provide means for moving the substrate to the device under test so that the membrane probe is able to perform the test.

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claim 23 is rejected under 35 U.S.C. § 102(b) as being anticipated by Gross et al (Pat # 4,922,192).

As to claim 23, Gross et al disclose elastic membrane probe having a substrate (12), a plurality of conductive members (13) and a plurality of contact locations (14).

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14. Claims 1-15, 18-21, 41 and 43 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 4, "said first side" has no antecedent basis. In claim 4, "said protuberance" has no antecedent basis. It is unclear what "said protuberance" represents. Is it shown in any of drawings? In claim 7, it is unclear what "a plurality of second electrical contact locations" represent. Are they shown in any of drawings? In claim 8, it is unclear what "an elongated electrical conductor" represents. Is it shown in any of drawings? In claim 9, it is unclear what "electrical conductor patterns" represent. Are they shown in any of drawings? In claim 13, it is unclear what "a layer of material disposed on said sheet" represents. Is it shown in any of drawings? In claim 18, "said enlarged tip" has no antecedent basis. In claim 19, it is unclear what "a layer of material disposed on said sheet" represents. Is it shown in any of drawings? In claim 41, the dependency of this claim is improper. In claim 43, it is unclear what "a second layer of polymer material" represents. Is it shown in any of drawings? Claims 2-3, 5-6, 10-12, 14-15 and 20-21 share the same indefiniteness with claims 1, 4, 7-9, 13, 18-19, 41 and 43.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


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Liu et al (Pat # 5,177,439) disclose probe card for testing unencapsulated semiconductor devices.

Leedy (Pat # 4,994,735) discloses flexible tester surface for testing integrated circuit.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **VINH NGUYEN** whose telephone number is (703) 305-4914.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4900.


VINH P. NGUYEN
PRIMARY EXAMINER
ART UNIT 2213
03/10/97